

IN THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application.

1. (Currently Amended) ~~A personal computer~~ that is configured for connection to a network including the Internet, comprising including, but not limited to:

~~at least one a microchip including at least one general purpose a microprocessor,~~
said microprocessor including a master ~~with at least one control unit and at least two processing units on said at least one microchip,~~ the master control unit being configured to control the processing units;

~~at least one Faraday Cage~~ substantially surrounding said at least one microchip;

~~said at least one microchip further including at least one inner firewall being configured to deny access to said at least one control unit from at least one network of computers with hardware to make the master control unit and one of the processing units inaccessible from the network including the Internet when the computer is connected to the network including the Internet; and~~

said at least one inner firewall is further configured in a manner that permits access by another computer in the network including the Internet to at least one of the processing units of the microprocessor for an operation with said another computer in the network including the Internet when the computer is connected to the network including the Internet

~~said at least one inner firewall being located between said at least one control unit and at least one of said at least two processing units;~~

~~said at least two processing units having at least one network connection to said at least one network of computers; and~~

~~said at least one network of computers including at least the Internet.~~

2. (Currently amended) The ~~personal~~ computer of claim ~~194~~, wherein ~~at least~~ one an operating system of said ~~personal~~ computer includes at least two or more independent components, each component having its own ~~said at least one~~ inner firewall configured with hardware to make each said component inaccessible from the network including the internet when the computer is connected to the network including the internet.

3. (Currently amended) The ~~personal~~ computer of claim ~~194~~, wherein said ~~at least one~~ microchip further includes at least one special purpose microprocessor.

4. (Currently Amended) The ~~personal~~ computer of claim ~~194~~, wherein said ~~at least one~~ microchip further includes ~~at least one personal computer system on said~~ microchip,

a random access memory (RAM);

an input; and

an output.

5. (Currently Amended) The ~~personal~~ computer of claim ~~194~~, wherein said ~~at least one~~ microchip ~~is at least surrounded by said at least one Faraday Cage~~ is configured ~~optimized~~ to shield against magnetic flux, including high frequency flux.

6. (Currently Amended) The ~~personal computer of claim 194~~, wherein said at least one microchip is surrounded by said at least one Faraday Cage that is a continuous structure without holes.

7. (Currently amended) The ~~personal computer of claim 194~~, wherein said at least one microchip is surrounded by at least two Faraday Cages.

8. (Cancelled)

9. (Cancelled)

10. (Currently amended) The ~~personal computer of claim 1~~, wherein said at least one microchip includes at least two of said at least one inner firewall configured to operate within said personal computer, said personal computer configured to operate in said at least one network of computers;

~~at least a first of said at least one inner firewall is configured to deny access to at least said at least one control unit of said personal computer by at least one other computer through said at least one network connection with said personal computer during at least one shared operation; and—~~

~~at least a second of said at least one inner firewalls is configured to allow access to at least one of said at least two processing units of said personal computer by said at least one other computer through said at least one network connection with said personal computer during said at least one shared operation~~ A computer that is configured for connection to a network including the Internet, comprising:

a microchip including a microprocessor, said microprocessor including a master control unit that is configured using hardware and firmware and including at least two processing units, the master control unit being further configured to control the processing units;

a Faraday Cage substantially surrounding said microchip;

said microchip includes at least two inner firewalls;

a first of said at least two inner firewalls is configured with hardware to make the master control unit and one of the processing units inaccessible from the network including the Internet when the computer is connected to the network including the Internet; and

a second of said at least two inner firewalls is configured with hardware to make at least one of the processing units of the microprocessor inaccessible from the network including the Internet when the computer is connected to the network including the Internet.

11. (Currently amended) The ~~personal~~ computer of claim ~~194~~, wherein ~~at least one configuration of said at least one inner firewall is configurable by at least one a~~ user of said ~~personal~~ computer or by at least one authorized local network administrator.

12. (Currently amended) The ~~personal~~ computer of claim 11, wherein ~~at least one a~~ change in said ~~at least one configuration of said at least one inner firewall~~ is made, at least in part, by using field-programmable gate arrays (FPGA's).

13. (Currently amended) The ~~personal~~ computer of claim 11, wherein ~~at least one~~ a change in said ~~at least one~~ configuration of said ~~at least one~~ inner firewall involves ~~at least one~~ a motherboard.

14. (Currently amended) The ~~personal~~ computer of claim 11, wherein ~~at least one~~ a change in said ~~at least one~~ configuration of said ~~at least one~~ inner firewall involves ~~at least one~~ a manual switch.

15. (Previously presented) The personal computer of claim 10, wherein said at least one firewall includes at least one hardware component.

16. (Currently amended) The ~~personal~~ computer of claim 10, wherein ~~said at least one~~ of said at least two firewalls includes a ~~at least one~~ software component.

17. (Currently amended) The ~~personal~~ computer of claim 10, wherein ~~said at least one~~ of said at least two firewalls includes a ~~at least one~~ firmware component.

18. (Currently amended) The ~~personal~~ computer of claim 10, wherein said ~~at least one shared~~ computer is configured in a manner such that an operation with another computer from the network including the Internet is initiated by a ~~at least one~~ user of said ~~personal~~ computer.

19. (Currently amended) The ~~personal~~ computer of claim 10, wherein said ~~at least one shared~~ computer is configured in a manner such that an operation with

another computer from the network including the Internet is initiated by said ~~at least one another~~ computer.

20. (Currently amended) The ~~personal~~ computer of claim 10, wherein said computer is configured in a manner such that at least a part of said ~~personal~~ computer is idled by a ~~at least one~~ user of said ~~personal~~ computer.

21. (Currently amended) The ~~personal~~ computer of claim 10, wherein said ~~at least one~~ second firewall denies access at least temporarily to ~~at least one~~ said at least one processing unit ~~microprocessor of said personal computer by said at least one another computer through from~~ said ~~at least one~~ network including the Internet ~~connection during said at least one shared operation.~~

22. (Currently amended) The ~~personal~~ computer of claim 10, wherein said ~~at least one~~ second firewall allows access at least temporarily to said at least one processing unit ~~microprocessor of said personal computer by said at least one another computer through from~~ said ~~at least one~~ network including the Internet ~~connection during said at least one shared an operation with said another computer from the network including the Internet.~~

23. (Cancelled)

24. (Currently amended) The ~~personal~~ computer of claim 10, wherein said ~~at least one~~ network ~~of computers~~ including the Internet includes at least a World Wide Web.

25. (Currently amended) The ~~personal~~ computer of claim 10, wherein said ~~at least one computer~~ is connected to said network including the Internet by a network connection that includes ~~an at least one optical fiber connection~~ connected directly to said ~~personal~~ computer.

26. (Currently amended) The ~~personal~~ computer of claim 10, wherein said ~~personal~~ computer is configured for a dense wave division multiplexing (DWDM) network connection.

27. (Currently amended) The ~~personal~~ computer of claim 10, wherein said ~~personal~~ computer is configured to function as one of a ~~at least one~~ master and a ~~at least one~~ slave in said ~~at least one shared~~ an operation with another computer from the network including the Internet.

28. (Cancelled)

29. (Currently amended) The ~~personal~~ computer of claim ~~10~~1, wherein said ~~at least one shared~~ operation is parallel processing and/or multitasking.

30. (Currently amended) The ~~personal~~ computer of claim 10, wherein said ~~at least one~~ another computer is ~~at least one other~~ a personal computer connected via a ~~at least one peer-to-peer~~ connection to said ~~personal~~ computer.

31. (Cancelled)

32. (Cancelled)

33. (Currently Amended) The ~~personal~~ computer of claim 10, wherein said ~~at least one~~ microchip has at least four or eight or 16 or 32 or 64 or 128 or 256 or 512 or 1024 processing units.

34. (Currently Amended) The ~~personal~~ computer of claim 10, wherein said ~~at least one~~ microchip has at least eight processing units the master control unit includes a processing unit.

35. (Currently Amended) The ~~personal~~ computer of claim 10, wherein said ~~at least one~~ microchip has at least 16 processing units the master control unit includes a random access memory (RAM) that is configured to be inaccessible from the Internet when the computer is connected to the Internet.

36. (Currently Amended) The ~~personal~~ computer of claim ~~10~~ 35, wherein said ~~at least one~~ microchip has at least 32 processing units the random access memory (RAM) is non-volatile.

37. (Currently Amended) The ~~personal~~ computer of claim 10, wherein said ~~at least one~~ microchip has at least 64 processing units Faraday Cage is a continuous structure without holes.

38. (Currently amended) The ~~personal~~ computer of claim 10, wherein said ~~at least one microchip has at least 128 processing units~~ is surrounded by at least two Faraday Cages.

39. (Currently Amended) The ~~personal~~ computer of claim 10, wherein said ~~at least one microchip has at least 256 processing units~~ further includes an inner Faraday cage that surrounds only a portion of said microchip.

40. (Cancelled)

41. (Currently Amended) The ~~personal~~ computer of claim 10, wherein said ~~at least one microchip has at least 1024 processing units~~ the microchip further includes a dynamic random access memory (DRAM) that is configured for connection to the Internet and for control by the master control unit.

42. (Currently amended) The ~~personal~~ computer of claim ~~1094~~, wherein said ~~firewall is at least one hardware component~~ microchip further includes an inner Faraday cage that surrounds only a portion of said microchip.

43. (Currently amended) The ~~personal~~ computer of claim 10, wherein said ~~at least one network connection computer~~ is configured for a ~~at least one wireless connection.~~

44. (Currently amended) The ~~personal~~ computer of claim 43, wherein said ~~at least one~~ wireless connection ~~is to~~ connects said computer to said ~~at least one~~ network ~~of computers~~ including the Internet.

45. (Currently amended) The ~~personal~~ computer of claim 10, wherein a part of an operating system of said ~~personal~~ computer includes at least two ~~independent~~ separate components, each component having its own said ~~at least one~~ inner firewall.

46. (Currently amended) The ~~personal~~ computer of claim 10, wherein an application program of said ~~personal~~ computer includes at least two ~~independent~~ separate components, each component having its own said ~~at least one~~ inner firewall.

47. (Currently amended) The ~~personal~~ computer of claim 10, wherein a part of an application program of said ~~personal~~ computer includes at least two ~~independent~~ separate components, each component having its own said ~~at least one~~ inner firewall.

48. (Currently amended) The ~~personal~~ computer of claim ~~10~~94, further including a volatile memory, said firewall is further configured to permit access to at least a portion of said volatile memory by the network including the Internet to provide a network-accessible portion of said volatile memory; and

wherein said master control unit is configured to interrupt power ~~is interrupted~~ to said ~~at least one~~ network-accessible portion of said ~~at least one~~ volatile memory ~~of~~

~~said personal computer in order to erase all files in said at least one network-accessible portion of said volatile memory portion, said at least one network-accessible portion being located outside said at least one inner firewall.~~

49. (Currently amended) The ~~personal computer of claim 1094, further including~~
a non-volatile memory, said firewall is further configured to permit access to at least a
portion of said non-volatile memory by the network including the Internet to provide a
network-accessible portion of said non-volatile memory; and

~~wherein said master control unit is configured to overwrite all files are~~
~~overwritten in said at least one network-accessible portion of said at least one non-volatile~~
~~memory of said personal computer to erase all files in said network-accessible portion of~~
~~said non-volatile memory, said at least one network-accessible portion being located~~
~~outside said at least one inner firewall.~~

50. (Currently amended) ~~The personal computer of claim 1, wherein said at least~~
~~one microchip includes at least two of said at least one inner firewall configured to~~
~~operate within said personal computer, which is configured to operate in said at least one~~
~~network of computers;~~

~~said at least one microchip including at least two memory hardware components;~~

~~at least a first of said at least one inner firewall is configured to deny access to at~~
~~least a first of said at least two processing units and at least a first of said at least two~~
~~memory hardware components of said personal computer by at least one other~~
~~computer through said at least one network connection with said personal computer~~
~~during at least one shared operation; and~~

~~at least a second of said at least one inner firewalls is configured to allow access to at least a second of said at least two processing units and at least a second of said at least two memory hardware components of said personal computer by said at least one other computer through said at least one network connection with said personal computer during said at least one shared operation~~

A computer that is configured for connection to a network including the Internet, comprising:

a microchip including a microprocessor, at least two inner firewalls and at least two memory components,

said microprocessor including a master control unit that is configured using hardware and firmware and including at least two processing units, the master control unit being configured to control the processing units;

a Faraday Cage substantially surrounding said microchip;

a first of at least two inner firewalls is configured with hardware to make the master control unit, a first of said at least two processing units and a first of said at least two memory components inaccessible from the network including the Internet when the computer is connected to the network including the Internet; and

a second of said at least two inner firewalls is configured with hardware to make a second of said at least two processing units and a second of said at least two memory components inaccessible from the network including the Internet when the computer is connected to the network including the Internet.

51. (Currently Amended) The ~~personal computer~~ of claim 50, wherein said second of said at least two ~~one~~ firewalls is configured to deny access by a user of said computer ~~to at least said second of said at least two memory hardware components of~~

said ~~personal computer by said personal computer~~ during ~~said at least one shared~~ an operation with another computer from the network including the Internet.

52. (Currently amended) The ~~personal computer~~ of claim 50, wherein said first of said at least two memory ~~hardware~~-components is at least one hard drive device.

53. (Currently amended) The ~~personal computer~~ of claim 50, wherein said first of said at least two memory ~~hardware~~-components is at least one flash memory device.

54. (Currently amended) The ~~personal computer~~ of claim 50, wherein said second of said at least two memory ~~hardware~~-components is at least one flash memory device.

55. (Currently amended) The ~~personal computer~~ of claim 50, wherein said second of said at least two memory ~~hardware~~-components is at least one volatile random access memory (RAM) device.

56. (Currently amended) The ~~personal computer~~ of claim 50, wherein said second of said at least two memory ~~hardware~~-components is at least one hard drive device.

57. (Currently amended) The ~~personal computer~~ of claim 50, wherein said second of said at least two memory ~~hardware~~-components is at least one read-only memory (ROM)-compact disk drive (CD-ROM) device.

58. (Currently amended) The ~~personal~~-computer of claim 50, wherein said second of said at least two memory ~~hardware~~-components is at least one read-only digital video disk drive (DVD-ROM) device.

59. (Currently amended) The ~~personal~~-computer of claim 50, wherein said first of said at least two memory ~~hardware~~-components includes a ~~at least one~~ Basic Input Output System (BIOS).

60. (Currently amended) The ~~personal~~-computer of claim 50, wherein the computer is configured so that a ~~at least one~~-user of said ~~personal~~-computer retains preemptive control of at least said second memory component of said at least two memory ~~hardware~~-components.

61. (Currently amended) The ~~personal~~-computer of claim 50, wherein the computer is configured so that a ~~at least one~~-user of said ~~personal~~-computer retains preemptive control of all components of said personal computer.

62. (Cancelled)

63. (Currently amended) The ~~personal~~-computer of claim 50, wherein said ~~personal~~-computer is configured to functions as a ~~at least one~~-master in an ~~said at least one~~ shared-operation with another computer in the network including the Internet.

64. (Currently amended) The ~~personal~~-computer of claim 50, wherein said ~~personal-computer~~ is configured to functions as a at least one-slave in an said at least one-shared-operation with another computer in the network including the Internet.

65. (Currently amended) The ~~personal~~-computer of claim 50, wherein said second ~~memory~~-of said at least two memory ~~hardware~~-components is a volatile memory component.

66. (Currently amended) The ~~personal~~-computer of claim 50, wherein said first ~~memory~~ of said at least two memory ~~hardware~~-components is a non-volatile memory component.

67. (Currently amended) The ~~personal~~-computer of claim 66, wherein said non-volatile memory component is at least one of a magnetic random access memory (MRAM) component or an ovonic unified memory microchip.

68. (Currently amended) The ~~personal~~-computer of claim 50, wherein said second ~~memory~~-of said at least two memory hardware-components duplicates a first ~~memory~~-of said at least two memory ~~hardware~~-components.

69. (Currently amended) The ~~personal~~-computer of claim 50, wherein said first ~~memory~~-of said at least two memory ~~hardware~~-components is a read and write memory component.

70. (Currently amended) The ~~personal~~ computer of claim 50, wherein said second ~~memory of~~ said at least two memory ~~hardware~~ components is a read-only memory component.

71. (Currently amended) The ~~personal~~ computer of claim 50, wherein ~~any at least one of each of a hardware component, software file, or and firmware file can have~~ has its own said ~~at least one inner~~ firewall.

72. (Currently amended) The ~~personal~~ computer of claim 50, wherein at least two of a hardware component, a software file, or a firmware file ~~can be are~~ are grouped exclusively together inside ~~said at least one~~ said inner firewall.

73. (Currently amended) The ~~personal computer of claim 1, wherein said at least one microchip includes at least two of said at least one inner firewall configured to operate within said personal computer, which is configured to operate in said at least one network of computers;~~

~~said at least one microchip including at least two memory hardware components;~~

~~at least a first of said at least one inner firewall is configured to deny access to at least a first of said at least two memory hardware component of said personal computer by another computer through said at least one network connection with said personal computer during at least one shared operation; and~~

~~at least a second of said at least one inner firewalls is configured to allow access to at least a second of said at least two memory hardware components of said personal computer by said at least one other computer through said at least one~~

~~network connection with said personal computer during said at least one shared operation~~

A computer that is configured for connection to a network including the Internet, comprising:

a microchip including a microprocessor, at least two inner firewalls and at least two memory components,

said microprocessor including a master control unit that is configured using hardware and firmware and including at least two processing units, the master control unit being configured to control the processing units;

a Faraday Cage substantially surrounding said microchip;

a first of said at least two inner firewalls is configured with hardware to make the master control unit, one of the processing units, and a first of said at least two memory components inaccessible from the network including the Internet when the computer is connected to the network including the Internet; and

a second of said at least two inner firewalls is configured with hardware to make a second of said at least two memory components inaccessible from the network including the Internet when the computer is connected to the network including the Internet.

74. (Cancelled)

75. (Cancelled)

76. (Currently Amended) ~~The personal computer of claim 194, wherein said~~
a personal computer system is contained in on said at least one microchip.

77. (Currently amended) The ~~personal-computer~~ of claim 76, wherein said ~~personal computer system is contained in said at least one microchip~~ includes having a more than one of said at least one general-purpose microprocessor.

78. (Cancelled)

79. (Currently amended) The ~~personal-computer~~ of claim ~~1-94~~, wherein said ~~personal-computer~~ is an at least one-appliance that includes at least one of a handheld personal digital assistant, a telephone, a pager, a television, a game, a videotape player/recorder, a video camera, a compact disk (CD) player/recorder, a digital video disk (DVD) player/recorder, a radio, a camera, a printer, a fax machine, and an automobile.

80. (Currently Amended) A ~~personal-computer~~ that is configured for connection to a network including the Internet, including, but not limited tocomprising:

~~at least one a microchip including a at least one general-purpose microprocessor, including a master control unit that is configured using hardware and firmware, at least two processing units and at least one inner firewall, the master control unit being configured to control the processing units; with-~~

~~at least one photovoltaic cell located on said at least one microchip; and~~
said at least one inner firewall is configured with hardware to make the master control unit and one of the processing units inaccessible from the network including the Internet when the computer is connected to the network including the Internet.

81. (Currently Amended) The ~~personal-computer~~ of claim 80, wherein ~~said-~~
~~general-purpose microprocessor includes at least one control unit and at least two~~
~~processing units;~~

~~said at least one microchip including at least one inner firewall configured to~~
~~deny access to said at least one control unit from said at least one network;~~

~~said at least one inner firewall located between said at least one control unit and~~
~~at least one of said at least two processing units;~~

~~said at least two processing units connected to at least one network; and~~

~~said at least one network including at least the Internet~~

the at least one inner firewall is further configured in a manner that permits
access by another computer in the network including the Internet to at least one of the
processing units for an operation with said another computer in the network including the
Internet when the computer is connected to the network including the Internet.

82. (Currently Amended) A ~~personal-computer~~ that is configured for connection
to a network including the Internet, including, but not limited to comprising:

~~at least one a microchip including at least one general-purpose a microprocessor,~~
including a master control unit that is configured using hardware and firmware, at least
two processing units and at least one inner firewall, the master control unit being
configured to control the processing units; with

~~at least one photovoltaic cell located on said at least one microchip; and~~

~~at least one a Faraday Cage substantially surrounding at least one portion of said~~

~~at least one microchip;~~

wherein said at least one firewall is configured with hardware to make the master control unit and one of the processing units inaccessible from the network including the Internet when the computer is connected to the network including the Internet.

83. (Currently Amended) The ~~personal computer~~ of claim 82, wherein ~~said general purpose microprocessor includes at least one control unit and at least two processing units;~~

~~said at least one microchip including at least one inner firewall being configured to deny access to said at least one control unit from said at least one network;~~

~~said at least one inner firewall located between said at least one control unit and at least one of said at least two processing units;~~

~~said at least two processing units connected to at least one network; and said at least one network including at least the Internet;~~

the at least one inner firewall is further configured in a manner that permits access by another computer in the network including the Internet to at least one of the processing units for an operation with said another computer in the network including the Internet when the computer is connected to the network including the Internet.

84. (Currently Amended) The ~~personal computer~~ of claim ~~194~~, wherein said at least one inner firewall includes at least one hardware component;

the at least one inner firewall being configured to allow and/or deny access to portions of the ~~at least one microchip both to at least one a user of the personal computer and to at least one a user of the at least one microchip from at least one the~~

~~network of computers~~ including the Internet during ~~at least one~~ a shared use of the ~~at least one~~ microchip.

85. (Currently Amended) The ~~personal~~ computer of claim 84, wherein the shared use comprises shared file resources and/or message passing.

86. (Currently Amended) The personal computer of claim 84, wherein the shared use includes unauthorized shared use, including intrusion by hackers from outside the ~~personal~~ computer.

87. (New) The computer of claim 1, wherein the microchip is a personal computer and the master control unit is configured for receiving input from an individual user of the personal computer.

88. (New) The computer of claim 1, wherein the computer is configured such that an individual computer user has preemptive control of use of the computer.

89. (New) The computer of claim 50, wherein said Faraday Cage is a continuous structure without holes.

90. (New) The computer of claim 50, wherein said microchip is surrounded by at least two Faraday Cages.

91. (New) The computer of claim 50, wherein said microchip includes an inner Faraday cage that surrounds only a portion of said microchip.

92. (New) The computer of claim 50, wherein said Faraday Cage is ~~optimized~~ configured to shield against magnetic flux including high frequency flux.

93. (New) The computer of claim 10, wherein said Faraday Cage is ~~optimized~~ configured to shield against magnetic flux including high frequency flux.

94. (New) The computer of claim 1, wherein the master control unit includes a processing unit.

95. (New) The computer of claim 94, wherein the master control unit includes a random access memory (RAM) that is configured to be inaccessible from the Internet when the computer is connected to the Internet.

96. (New) The computer of claim 94, wherein the master control unit is further configured to control access to the computer by the network including the Internet for said operation when the computer is connected to the network including the Internet.

97. (New) The computer of claim 94, wherein the master control unit is further configured to initiate, and control execution of, said operation with said at least one of the processing units of the microprocessor when the computer is connected to the network including the Internet.

98. (New) The computer of claim 94, wherein the master control unit is further configured to permit execution of said operation as requested by said another computer with said at least one of the processing units of the microprocessor when the computer is connected to the network including the Internet.

99. (New) The computer of claim 94, wherein the microprocessor is a general purpose microprocessor.

100. (New) The computer of claim 1, wherein a wired connection to the computer includes one or more ferrite beads.

101. (New) The computer of claim 1, wherein a wired connection to the computer is surrounded by a Faraday cage.

102. (New) The computer of claim 1, wherein the computer includes an external antenna that includes one or more ferrite beads.

103. (New) The computer of claim 1, wherein the computer is powered by one or more photovoltaic cells, one or more batteries, or one or more fuel cells, all of which are surrounded by Faraday cage.

104. (New) The computer of claim 1, wherein the computer is powered by one or more batteries and said one or more batteries are configured to provide a connection to a power grid only when charging of said batteries is required.

105. (New) The computer of claim 1, wherein the Faraday cage includes a heat sink.